

## EPO-641 Education on the rationale for BTK inhibitors significantly improves knowledge, confidence, and intention to learn more

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**Background and Aims:** Neurologists are unfamiliar with Bruton tyrosine kinase inhibitors (BTKis) and their relevance for future MS practice. We sought to improve knowledge of the rationale for BTKis in MS by providing expert-led education.

**Methods:** Neurologists participated in an online CME divided into 6 video + slide segments with synchronized slides.<sup>1</sup> The education effects were assessed using a 3-question, repeated pairs, pre-assessment/post-assessment study design. One question assessed confidence. Differences pre- to post-assessment were evaluated using McNemar's test.  $p \leq 0.05$  is significant. The activity launched in June 2024; data were collected over 8 weeks.

**Results:** 598 neurologists participated, with 78 completing all pre- and post-assessment questions. Significant overall improvements were seen, with a 43% correct response rate pre-assessment vs 63% post-assessment;  $p < 0.001$ ,  $N = 78$ . Specifically, significant improvements were observed in knowledge that BTK inhibition within the CNS has a pharmacological effect on B cells and microglia; and that T1- and T2-weighted MRI can be used longitudinally to measure slowly expanding lesions, which may be driven by smoldering inflammation. After participating, 45% of neurologists had measurable improved confidence in describing the role of BTK inhibition within the CNS. 47% of neurologists said they intend to learn more about MS pathophysiology, and 19% said they would learn more about BTK inhibition in MS.

**Conclusion:** This study demonstrates the success of online, multi-component, multi-faculty, video-based CME in improving knowledge and intention to acquire more knowledge about a new class of therapy for MS. Improved knowledge on BTKis should result in increased confidence in their future implementation of these therapies.

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